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EXAMINER

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ART UNIT	PAPER NUMBER
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2655

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/055,476	Applicant(s) PICKOVER ET AL.	
	Examiner Brian L Albertalli	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because Fig. 4 and Fig. 5 use the term "mood" instead of the term "tone" as used in the specification. The objection to the drawings will not be held in abeyance.

Claim Objections

2. The term "tone" in claims 1, 2, 11-15, 17-22, 31-35, 37-42, 51-55, and 57-60 is a relative term which renders the claim indefinite. The tone of a message is a subjective analysis of the style or manner of expression of the writer or speaker. For example, a message that seems overly formal to one person may be considered informal to another. Furthermore, the context in which the message is used also determines the tone of the message. For example, what is considered informal in a business setting may be considered overly formal in an exchange between close friends.

For a further example, consider the sentence "I am pleased.". This could be considered an expression of happiness, indicating that the sentence has a happy tone. However, in comparison to a sentence such as "I am so happy!", the sentence "I am pleased." indicates a very neutral tone. The "tone" of a particular message, therefore, is a somewhat arbitrary designation.

For the reasons given above, claims 1, 2, 11-15, 17-22, 31-35, 37-42, 51-55, and 57-60 are objected to. Accordingly, claims 3-10, 16, 23-30, 36, 43-50, and 56 are objected to as being dependent upon an objected to base claim.

For the purposes of examination, the examiner has interpreted "tone" as any identifiable style or manner of expression in speech or writing.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 7, 8, 16, 19-22, 27, 28, 36, 39-42, 47, 48, 56, 59, and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold et al. (U.S. Patent 5,781,879).

In regard to claims 1, 20, 21, 40, 41, and 60, Arnold et al. disclose a method in a data processing system (computer), said method comprising the steps of:

specifying a particular tone (Fig. 1, phase 3 and Fig. 2, step 4.3, the user selects parameters to modify the semantic content, column 3, lines 65-68; the semantic content is equivalent to the tone of the message; in the example given a selection is made to increase the "activeness", as opposed to "passiveness", of the message as well as the "emotional" impact of the message, column 5, lines 32-35);

determining, utilizing said data processing system (computer), an original tone of a message (phase 2, a selection of text is examined to find the value the selected semantic content parameters, column 4, lines 51-55 and column 5, lines 25-28);

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determining, utilizing said data processing system (computer), whether said original tone is said particular tone (step 4.3, if the user elects not to make any changes, no modification is made, column 3, lines 65-67, and column 4, lines 10-11); and

automatically modifying, utilizing said data processing system (computer), said message to change said original tone to said particular tone in response to a determination that said original tone is not said particular tone (step 4.3.1, if the operator has elected to make a change, the new information element is inserted, column 4, lines 5-7 and column 5, lines 37-40).

Furthermore, particularly in regard to claims 20, 40, and 60, Arnold et al. further disclose that the degree to which each tone is modified is variable, and that the message can be modified to keep the same tone, while changing the degree to which the message has that tone. See column 4, lines 44-50 and tables 3-2 and 3-3. The modifications make the message more "active" while retaining the "active" tone of the message. That is, the modifications do not raise the score of the Active-Passive category above 3, indicating that the message is still has an "active" tone. Conversely, the modifications change the tone of the message from a very slightly objective tone (a score slightly less than 3) to a moderately emotional tone (a score of 4.00).

In regard to claims 2, 22, and 42, Arnold et al. disclose:

parsing said message into a plurality of elements (a selection of text is analyzed, column 4, lines 51-53); and

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determining, utilizing said data processing system (computer), an original tone of a message by determining a tone of each of said plurality of elements (the average value of each category of analysis determines the overall score, column 4, lines 56-59; and see tables 3-2 and 3-3, the score of each word in each category, namely Active-Passive and Objective-Emotional, is summed in the Total row, then averaged to get the overall document score):

In regard to claims 7, 8, 27, 28, 47, and 48, Arnold et al. disclose adding and deleting words to said message (for example, the words "Now" and "time" are added to the message, while "Soon" and "hour" are deleted, column 5, lines 37-38).

In regard to claims 16, 36, and 56, Arnold et al. disclose parsing said message into a plurality of elements, wherein one of said plurality of elements is an entire body of said message (the total score is a score of the entire body of the message, Figs. 3-2 and 3-3 and column 3, lines 21-28).

In regard to claims 19, 39, and 59, Arnold et al. disclose:

specifying a particular type of tone (the predetermined category of semantic content, column 3, lines 15-18 and column 5, lines 25-28);

determining, utilizing said data processing system (computer), an original type of tone of a message (the averages for each category of semantic content, column 4, lines 51-55 and column 5, lines 25-28);

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determining, utilizing said data processing system (computer), whether said original type of tone is said particular type of tone (the user selects whether to modify each category, column 3, lines 65-67; column 4, lines 10-11); and

automatically modifying, utilizing said data processing system (computer), said message to change said original type of tone to said particular type of tone in response to a determination that said original type of tone is not said particular type of tone (the message is modified to increase and decrease the score for each category, column 5, lines 32-35).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6, 9-15, 23-26, 29-35, 43-46, and 49-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al.

In regard to claims 3-6, 23-26, and 43-46, Arnold et al. disclose that a selection of text is examined to determine the tone of that selection of text, each selection being used to determine the overall document score (column 4, lines 51-53 and lines 56-59).

Arnold et al. are silent as to the size of each selection of text.

Official notice is taken that it is notoriously well known and recognized in the art to specify the size of the elements used when parsing a text, such as the sizes of a

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word, a sentence, and a paragraph, in order to balance the trade off of between the accuracy of the parse and the speed of the parse. A word-by-word parse will provide more accurate information in a given analysis of a message, but takes the most processing time for that analysis. Similarly, parsing at the paragraph size will provide a fast analysis, but will be less accurate.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Arnold et al. to specify the size of each of a plurality of elements wherein the size was a word, a sentence, or a paragraph, in order to balance the trade off of between the accuracy of the parse and the speed of the parse.

In regard to claims 9, 10, 29, 30, 49, and 50, Arnold et al. disclose font is a category that contributes to the tone (semantic content) of a message (column 5, lines 49).

Arnold et al. do not explicitly disclose changing the font in order to change the tone of the message, or changing the punctuation in order to change the tone of the message.

Official notice is taken that it is notoriously well known and recognized in the art that changing the font and the punctuation of a message would change the tone of the message.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Arnold et al. to change the font of the message in order to modify

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the tone of the message, so that the font of the message would not detract from the tone the user intended.

In regard to claims 11-15, 31-35, and 51-55 Arnold et al. disclose several categories of semantic content (tone) that are analyzed in a given message, including a "happy" category for analyzing an image (column 5, lines 43-46 and lines 51-55).

Arnold et al. do not explicitly disclose specifying a formal, informal, authoritative, or angry tone, and do not explicitly disclose specifying a happy tone in a message.

Official notice is taken that it is notoriously well known and recognized in the art that formal, informal, authoritative, angry, and happy tones are all various tones that a message can convey, and that it is necessary to choose an appropriate tone to suit a particular situation.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Arnold et al. to include categories for formal, informal, authoritative, angry, and happy tones in order to modify the message to a to an appropriate tone for a given situation.

7. Claims 17, 37, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al., in view of Ayyadurai (U.S. Patent 6,718,368), and further in view of Bowden (*Writing Good Reports*).

Arnold et al. disclose determining the tone of a message (column 4, lines 51-59).

Arnold et al. do not disclose identifying a recipient of said message;

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determining the tone of a last message sent to said recipient; and
utilizing said tone of said last message as a said particular tone.

Ayyadurai discloses identifying a recipient of a message (the profile of a customer, column 5, lines 60-66); and

modifying the tone of the message in response to that customer (the customer's message is analyzed to determine the "attitude" of the message, and an appropriate response based on that attitude is generated, column 6, lines 38-47).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Arnold et al. to identify the recipient of a message and modify the tone of the message based on that recipient, as disclosed by Ayyadurai, in order to compose intelligent responses to a message, as taught by Ayyadurai (column 5, lines 26-28).

Arnold et al. and Ayyadurai do not disclose determining the tone of a last message sent to the recipient and utilizing the tone of said last message as said particular tone.

Bowden teaches that the tone of a message must be appropriate for the recipient of the message (the tone must be right for the particular readership, page 49, line 16).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Arnold et al. and Ayyadurai et al. to determine the tone of a last message sent to a recipient and use that tone as said particular tone, in order to send a message with an appropriate tone to the recipient.

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8. Claims 18, 38, and 58 rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al., in view of Ayyadurai.

Arnold et al. disclose generating messages in a particular tone (column 4, lines 60-63).

Arnold et al. do not disclose generating a reply to a sender's message;
determining a tone of said sender's message; and
utilizing said tone of said sender's message as said particular tone.

Ayyadurai discloses determining the tone of a sender's message (attitude, column 5, lines 60-66); and

generating a reply to a sender's message utilizing said ton of said senders message as said particular tone (based on the user's attitude an appropriate response is generated, column 6, lines 38-46).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Arnold et al. to identify the recipient of a message and modify the tone of the message based on that recipient, as disclosed by Ayyadurai, in order to compose intelligent responses to a message, as taught by Ayyadurai (column 5, lines 26-28).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chambers (*The Agile Manager's Guide to Writing to Get Action*) discloses examples of proper usage of tone in a message. Gross et al. (U.S. Patent

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6,782,510) disclose a method that replaces inappropriate words in a message.

Kleindienst et al. (U.S. Patent 6,598,020) disclose a method for adjusting the tone of responses based on emotion. Volvani et al. (U.S. Patent Application Publication 2002/0199166) disclose a method of automatically determining and modifying the emotional tone of a message. Kantrowitz (U.S. Patent 6,622,140), Brown et al. (U.S. Patent 6,556,987), Wical (U.S. Patent 6,199,034), Razin (U.S. Patent 6,125,377) disclose various methods for identifying the tone of a message. Razin et al. (U.S. Patent 6,098,034) disclose a method of standardizing the phrasing in a message.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER